**Homework 30H** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cube Roots & Complex Numbers** Period:\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **SHOW ALL WORK AND WRITE IN COMPLETE SENTENCES OR ELSE LASALLE MUAHAHAHA.**

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| 1) Simplify: | 2) Simplify: |
| 3) Simplify: | 4) Simplify: |
| 5) Simplify: | 6) |
| 7) Simplify: | 8) Simplify: |
| 9) Simplify: | 10) Simplify: |
| 11) Simplify: | 12) Simplify: |
| 12) What is the value of *i* ?  What is the value of *i²* ?  What is the value of ? | 14) Simplify:   1. i 2. 2i 3. 3i 4. -5 5. 5i |
| 15) Simplify:   1. 4i 2. 5i 3. 10 i 4. 25 5. 4 | 16) Simplify: :   1. 8 2. 2 3. 12 4. 24i 5. None of the above |
| 17)  A.  B.  C.  D. | 18)  A.  B.  C.  D. |
| 19) Simplify: | 20) Simplify: |
| 21) Simplify: | 22) What is the simplest form of the radical ? (Assume that x and y are nonnegative) |